

Notice of Allowability

Application No.

10/729,537

Applicant(s)

CRANDALL ET AL

Examiner

Russell Frejd

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to applicant's filing on 5 December 2003.
2. ☒ The allowed claim(s) is/are 1-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Russell Frejd
RUSSELL FREJD
PRIMARY EXAMINER

In re Application of: Crandall et al.

Allowance of Application # 10/729,537

1. The following communication is in response to Applicant's filing on 5-December-2003.

Claims 1-19 are pending in the application.

Reasons for Allowance

2. The following is an Examiner's Statement of Reasons for the indication of allowable subject matter.

2.1 The instant application is directed to a non-obvious improvement over the information described in the prior art, the most relevant of the prior art of record being USP 5,088,033, issued to Binkley et al. on 11-February-1992, which discloses modifying a host data processing system to emulate another, dissimilar target system with a central processor (CPU) which is capable of executing a set of instructions different than those executable by the host system's CPU, thereby making it possible for a host system capable of displaying more information than a PC to display within its own characteristic display all the information a PC would provide on its display, making that information available for manipulation by an operator using the features of the more powerful host system.

2.2 The improvement comprises, in various embodiments, a processor-implemented method and apparatus for analyzing operations of an emulated input-output processor (IOP), wherein instructions native to a first type of instruction processor are emulated on a second type of instruction processor by executing an operating system with instructions native to the first type of instruction processor, including write input/output (IO) requests to a memory arrangement in

In re Application of: Crandall et al.

response to IO functions invoked by a program. An IOP emulator executable on the second type of instruction processor then emulates the IOP processing of IO requests, including the IO requests from the memory arrangement, and maintains in the memory arrangement a first set of data structures used in processing the IO requests, wherein state data contained in the data structures is displayed in response to a user input. These patentable distinctions are included in each of the independent claims, nos. 1, 10 and 12.

2.3 For at least these reasons, the art of record, either individually or in combination, fails to teach, suggest, or render obvious the useful, concrete and tangible <emulated execution and maintenance of state data which indicates the processing of IO requests between two dissimilar types of instruction processors> having the corresponding structure which is disclosed in the specification and equivalents thereof at least at page 4, line 11 through page 17, line 9, and Figures 1-10. In view of the foregoing, the claims of the present application are found to be patentable over the prior art.

Response Guidelines

3. Any comments considered necessary by applicant **MUST** be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably accompany the Issue Fee. Such submissions should clearly be labeled "Comments on Statement of Reasons for Allowance".

3.1 Any response to the Examiner in regard to this allowance should be

directed to: Russell Frejd, telephone number (571) 272-3779, Monday-Friday from 0530 to 1400 ET, or the examiner's supervisor, Kamini Shah, telephone number (571) 272-2279. Inquires of a general nature or relating to the status of this application should be directed to the TC2100

Serial Number: 10/729,537

Page 3

In re Application of: Crandall et al.

Group Receptionist (571) 272-2100.

mailed to: Commissioner of Patents and Trademarks
P.O. Box 1450, Alexandria, VA 22313-1450

or faxed to: (571) 273-8300

*Hand-delivered responses should be brought to the Customer Service Window, Randolph Building, 401
Dulany Street, Alexandria, VA, 22314.*

Date: 17-September-2006

RUSSELL FREJD

**RUSSELL FREJD
PRIMARY EXAMINER**